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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,880	01/21/2004	Steven J. Harrington	D/A1457	3166
7590 Patent Documentation Center Xerox Corporation Xerox Square 20th Floor 100 Clinton Ave. S. Rochester, NY 14644			EXAMINER BRINICH, STEPHEN M	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 03/11/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/761,880

Applicant(s)

HARRINGTON, STEVEN J.

Examiner

Stephen M. Brinich

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,8-10,12,13,15,16 and 27 is/are rejected.
- 7) ☒ Claim(s) 2-4,6,7,11,14 and 17-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10761880	1/21/04	HARRINGTON, STEVEN J.	D/A1457

Patent Documentation Center
Xerox Corporation
Xerox Square 20th Floor
100 Clinton Ave. S.
Rochester, NY 14644

EXAMINER

Stephen M. Brinich

ART UNIT**PAPER**

2625

20080225

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 8, 9-10, 12-13, 15-16, & 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Ostromoukhov et al (US 7054038).

Re claims 1 & 27, Ostromoukhov et al discloses (Abstract; column 7, line 13 - column 8, line 4; Figures 6-7 & 13-18) a method for forming a multi-color clustered-dot (with clustered dot areas and clustered off-dot areas) halftone cell. A range of values (Figure 6) is assigned for pixels of each color, and they are assigned positions along a pixel growth curve. The consecutively filled pixels form a cluster along the curve such that pixels widely separated along the curve are generally (with occasional exceptions) separated spatially within the halftone

cell (Figure 6). Each position in the halftone cell is associated with one of a set of threshold values (Figures 6-7), and a value is assigned to each input signal in accordance with these positions.

Re claim 5 & 8, Ostromoukhov et al discloses assignment of pixel positions for six colors (which encompasses "three" and "four" as subsets).

Re claim 9, Ostromoukhov et al discloses that the pixel growth curve is a space-filling curve, occupying each pixel within a solid region.

Re claim 10, Ostromoukhov et al discloses (column 7, lines 65-67) the use of a Hilbert curve as the space-filling curve.

Re claim 12, a determination that certain portions of a halftone cell are covered by a set of colors (e.g. any of the patterns in Ostromoukhov et al Figures 13-18) inherently determines that other portions will not be covered by that set of colors.

Re claim 13 & 15-16, Ostromoukhov et al discloses (Figures 13 & 17) that two of the set of colors are magenta and black, with black clusters growing in one (forward) direction and magenta clusters growing in the other (backward) direction.

Allowable Subject Matter

3. Claims 2-4, 6-7, 11, 14, & 17-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 2-3 & 6-7 (and dependent claim 17), the art of record does not teach or suggest the recited relationship between positions of density values for pixels of a second color and pixels of a first color in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 4, the art of record does not teach or suggest the recited co-location of pixels of first and second color values in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 11, the art of record does not teach or suggest the recited definition and thresholding of density values to alter the perceived halftone density patterns in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 14, the art of record does not teach or suggest the recited separation of halftone cell portions not covered by a set of colors in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 18, the art of record does not teach or suggest the recited connection of the end of a pixel growth curve in one halftone cell and the beginning of a curve in another cell in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 19 (and dependent claim 20), the art of record does not teach or suggest the recited shift of a halftone cell along the pixel growth curve in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 21, the art of record does not teach or suggest the recited shift of a halftone cell by a half cell in conjunction with the recited pixel growth curve having a range of density values for pixels of a first and second color.

Re claim 22 (and dependent claims 23-26), the art of record does not teach or suggest the recited division of a pixel into subpixels in conjunction with the recited pixel growth curve

having a range of density values for pixels of a first and second color.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

Any inquiry relating to the status of this application, entry of papers into this application, or other any inquiries of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 571-272-1000.

The examiner can normally be reached on weekdays 8:00-5:30, alternate Fridays off.

The examiner's unit designation has been changed from "Art Unit 2624" to "Technology Division 2625" (as of March 20, 2006).

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 571-273-8300.

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Hand-carried correspondence may be delivered to the
Customer Service Window, located at the Randolph Building, 401
Dulany Street, Alexandria, VA 22314.

Stephen M Brinich
Examiner
Technology Division 2625

/S. M. B./

Examiner, Art Unit 2625

March 11, 2008

/Thomas D Lee/

Primary Examiner, Technology Division 2625